

REMARKS

Claims 1-105 are pending in the application, with claims 1, 43, 85, and 86 being independent. Claims 43-84 and the specification have been amended and new claims 86-105 have been added by this response. Reconsideration and allowance of Applicant's claims are respectfully requested in light of the following remarks.

The drawings were objected to for informalities. In response to the Examiner's suggestions, proposed drawing changes have been submitted accompanying this response. The proposed changes (indicated in red ink) add the legend "PRIOR ART" to Figs. 3, 5A, and 5B. In addition, the reference character "615" of Fig. 6B has been changed to "618" to correct a typographical error and to correspond with the specification.

In addition, to correct a typographical error and provide consistency with the drawings and the specification, the specification has been amended at on page 10, line 33, to replace "628" with "620." No new matter has been added.

Therefore, it is respectfully requested that the objection to the drawings be withdrawn.

Applicant received a copy of the form PTO-1449 submitted February 9, 2001 attached to the office action with a line was drawn through the listing for document EPO 862 304 indicating that the document was not considered. No reason was provided in the office action as to why the document was not considered. Accompanying this amendment, Applicant submits a copy of the Form PTO-1449. Applicant respectfully requests that the document be considered and that an initialed copy of the Form PTO-1449 be returned to Applicant.

Claims 1-5, 8-17, 28-32, and 34-42 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,734,853 to Hendricks et al. ("Hendricks"). This rejection is respectfully traversed.

Applicant's claim 1 recites, among other things, "a computer-implemented method of providing interactive links in TV programming, the method comprising: receiving a TV signal including a graphic symbol; generating an active region corresponding to the graphic symbol; and triggering a predetermined action associated with the active region in response to viewer

input.” It is respectfully submitted that Hendricks does not describe or suggest at least these elements of Applicant’s claim 1.

Hendricks describes a viewer interface that provides a user menu for television programming by creating menu templates. The menu templates are created and sent to the set top terminal for storage. In particular, Hendricks describes at least two types of signals: program control signals and program signals. The program signals include television programming (such as TV shows, movies, etc.). The program control signals may be used to create the menu from menu templates.

To create the menu templates, the set top terminal demultiplexes the program control signals into four primary parts: video, graphics, program logic, and text. Each menu template represents a different portion of a whole menu, such as a background, logo, cursor or highlight overlay. (See, Hendricks, col. 11, lines 50-67). If a subscriber selects a specific program from a menu, the set top terminal determines a channel on which the program is showing and demultiplexes and extracts the channel from the program signal. However, Hendricks does not describe or suggest “receiving a TV signal including a graphic symbol; generating an active region corresponding to the graphic symbol,” as recited in Applicant’s claim 1. In contrast, Hendricks describes separate program signals (i.e., TV signals) and program control signals (e.g., the menu templates). As such, Hendricks does not describe each and every element of Applicant’s claim 1.

Claims 2-5, 8-17, 28-32, and 34-42 depend from claim 1 and are believed to be allowable for at least the reasons given for claim 1 above.

As Hendricks does not describe each and every element of Applicant’s claims 1-5, 8-17, 28-32, and 34-42, Hendricks cannot serve a basis for rejection under Section 102 (b). Therefore, reconsideration and withdrawal of the rejection of claims are respectfully requested.

Claims 6, 7, 43-59, 61-67, 70-74, and 76-84 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hendricks in view of U.S. Patent No. 5,983,245 to Newman et al. (“Newman”). This rejection is respectfully traversed.

Claims 6 and 7 depend from claim 1 and are believed to be allowable for at least the reasons given above for claim 1. In particular, Newman does not remedy any of the deficiencies

of Hendricks. As such, it is respectfully submitted that Hendricks and Newman do not establish a *prima facie* case of obviousness with regard to claims 6 and 7.

Claim 43 recites, among other things, "a set top device to provide interactive links in television (TV) programming, the set top device comprising: an interface for communications links to receive TV signals, the TV signals including one or more frames comprising an embedded graphic symbol; a monitor output to provide a display of the received TV signals including one or more frames comprising the embedded graphic symbol; an input to receive user input from a viewer; and a processor to generate an active region corresponding to the graphic symbol, and to trigger a predetermined action associated with the active region in response to viewer input." It is respectfully submitted that Hendricks and Newman, either alone or in combination, do not describe or suggest at least these elements of Applicant's claim 43.

As described above, Hendricks does not describe or suggest the displaying "TV signals including one or more frames comprising an embedded graphic symbol" and generating "an active region corresponding to the graphic symbol," as recited by claim 43. Newman is silent with regard to TV signals of any kind. As such, Hendricks and Newman, alone or in combination, do not describe or suggest each element of Applicant's claim 43.

Claims 44-59, 61-67, 70-74, and 76-84 depend from claim 43 and are believed to be allowable for at least the reason given above for claim 43.

It is respectfully submitted that Hendricks and Newman do not establish a *prima facie* case of obviousness with regard to claims 43-59, 61-67, 70-74, and 76-84. Therefore, reconsideration and withdrawal of the rejection of these claims are respectfully requested.

Claims 26 and 27 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hendricks in view of Newman and U.S. Patent No. 5,828,839 to Moncreiff ("Moncreiff"). This rejection is respectfully traversed.

Claims 26 and 27 depend from claim 1 and are believed to be allowable for at least the reasons given for claim 1. In particular, Newman and Moncreiff do not remedy any of the deficiencies of Hendricks that are noted above with respect to claim 1. As such, it is respectfully submitted that Hendricks, Newman, and Moncreiff, alone or in combination, do not establish a *prima facie* case of obviousness with regard to claims 26 and 27. Therefore, reconsideration and withdrawal of the rejection of these claims are respectfully requested.

Claims 68 and 69 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hendricks in view of Newman and Moncreiff. This rejection is respectfully traversed.

Claims 68 and 69 depend from claim 43 and are believed to be allowable for at least the reasons given for claim 43. In particular, Newman and Moncreiff do not remedy any of the deficiencies of Hendricks that are noted above with respect to claim 1. As such, it is respectfully submitted that Hendricks, Newman, and Moncreiff, alone or in combination, do not establish a *prima facie* case of obviousness with regard to claims 68 and 69. Therefore, reconsideration and withdrawal of the rejection of these claims are respectfully requested.

Claims 18, 33, and 85 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hendricks. This rejection is respectfully traversed.

Claims 18 and 33 depend from claim 1 and are believed to be allowable for at least the reasons given with regard to claim 1. In particular, Hendricks does not describe or suggest "receiving a TV signal including a graphic symbol; generating an active region corresponding to the graphic symbol," as recited in Applicant's claim 1.

Claim 85 recites, among other things, "computer software, tangibly embodied in a computer-readable medium or in a propagated carrier signal, for providing interactive links in television (TV) programming, the software comprising instructions for causing a computer system to perform the following operations: receive a TV signal including a graphic symbol; generate an active region corresponding to the graphic symbol; and trigger a predetermined action associated with the active region in response to viewer input."

It is respectfully submitted that Hendricks does not describe or suggest at least software instructions to "receive a TV signal including a graphic symbol; generate an active region corresponding to the graphic symbol" as recited by Applicant's claim 85.

As such, it is respectfully submitted that Hendricks does not establish a *prima facie* case of obviousness with regard to claims 18, 33, and 85. Therefore, reconsideration and withdrawal of the rejection of these claims are respectfully requested.

Attached is a marked-up version of the changes being made by the current amendment.

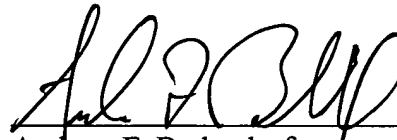
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It is respectfully submitted that the claims are in condition for allowance, and an early notice of the same is respectfully solicited. If any questions remain, the Examiner is invited to contact the undersigned attorney at the telephone number listed below. Please charge the additional claim fee of \$444.00 to Deposit Account No. 06-1050. Please apply any additional charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: DECEMBER 5, 2002



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Version with markings to show changes made

In the specification:

Paragraph beginning at page 10, line 30 has been amended as follows:

Fig. 6B is an example of a webpage 610 that could be generated and overlaid by the set top device on top of the screen of TV program content shown in Fig. 6A. In this example, the webpage overlay 610 includes 58 hotspots, each of which is capable of individually invoking an associated resource when selected by the viewer (e.g., user of the set top device). In this example, each of the 48 states within the mainland portion of the United States 614, plus the two boxes 618 and [628] 620 corresponding to Alaska and Hawaii, respectively, represents a separately selectable hotspot. In addition, the logo 612 is a separate hotspot as is each of the buttons 622 overlaying the scroll region. Each of the hotspots 612, 614, 618 and 620 are located on the webpage to be in registration with their respective underlying graphics in the TV program content (elements 602, 603, 605 and 607 respectively). For example, hotspot 612 is defined to be the same shape, size and at the same screen location as its associated graphic, the TV station logo 602. Accordingly, whenever a viewer moves a cursor or other input selection device to a position on the TV screen such that the cursor is on top of the logo 602, the cursor necessarily also falls within hotspot 612. If the user then clicked the cursor input device at that point, hotspot 612 thereby would be selected, and the action associated with hotspot 612 would be performed.

In the claims:

Claim 43-84 has been amended as follows:

43. A [system for providing] set top device to provide interactive links in television (TV) programming, the [system] set top device comprising:

[a set top device having] an interface for communications links [for receiving] to receive [computer network content or] TV signals [or both], the TV signals including one or more frames comprising an embedded graphic symbol;

a monitor output to display [for displaying] the received [computer network content and TV signals, the] TV signals including one or more frames comprising [an] the embedded graphic symbol;

an input [device for receiving] to receive user input from a viewer; and
[software instructions stored within the set top device (i) for generating a webpage having] a processor to generate an active region corresponding to the graphic symbol, and [(ii) for triggering] to trigger a predetermined action associated with the active region in response to viewer input.

44. The [system] set top device of claim 43 wherein the received TV signals comprise TV picture data having the graphic symbol embedded therein.

45. The [system] set top device of claim 43 wherein the graphic symbol in the TV signal is specified by a broadcaster of the TV signal.

46. The [system] set top device of claim 43 wherein the received TV signals include information defining the active region to be generated.

47. The [system] set top device of claim 43 wherein receipt of the TV signal further comprises receiving information defining the predetermined action to be triggered.

48. The [system] set top device of claim 43 wherein the [software instructions for generating the active region corresponding to the graphic symbol comprise instructions for generating] processor is configured to generate a webpage having a link to a resource.

49. The [system] set top device of claim 48 wherein the active region is substantially in registration with the graphic symbol received in the TV signal.

50. The [system] set top device of claim 43 wherein the active region is a same size and shape and at a same location as the received graphic symbol.

51. The [system] set top device of claim 43 wherein the active region roughly approximates the size, shape and/or location of the received graphic symbol.

52. The [system] set top device of claim 43 wherein the generated active region is visually transparent to the viewer.

53. The [system] set top device of claim 43 wherein the generated active region is visible to the viewer.

54. The [system] set top device of claim 53 wherein the visible active region is translucent.

55. The [system] set top device of claim 53 wherein the visible active region enhances an appearance of the received graphic symbol.

56. The [system] set top device of claim 53 wherein the visible active region serves as a visual cue to the viewer that the active region is available.

57. The [system] set top device of claim 43 wherein the [software instructions for generating the active region comprise instructions for modifying] processor is configured to modify an appearance of the active region.

58. The [system] set top device of claim 57 wherein the active region's appearance is modified in response to the passage of time.

59. The [system] set top device of claim 57 wherein the active region's appearance changes based on a current context.

60. The [system] set top device of claim 59 wherein a first context corresponds to a first state in which [a] the set top device is logged into an online service provider host system and a second context corresponds to a second state in which the set top device is not logged into the online service provider host system.

61. The [system] set top device of claim 57 wherein the active region's appearance changes in response to an event.

62. The [system] set top device of claim 61 wherein the event comprises detecting that a viewer has indicated interest in the active region.

63. The [system] set top device of claim 61 wherein the event comprises detecting that a viewer has selected the active region.

64. The [system] set top device of claim 58 wherein modification of the active region's appearance comprises changing one or more of the following visual characteristics of the active region: transparency, translucency, color, shape, size or location.

65. The [system] set top device of claim 43 wherein the viewer input that triggers the predetermined action comprises selection of the active area.

66. The [system] set top device of claim 43 wherein the [software instructions for triggering the predetermined action comprise instructions for accessing] processor is configured to access a resource linked to the active region.

67. The [system] set top device of claim 66 wherein the accessed resource comprises one or more of the following: a webpage, a text file, a sound file, an image file, a movie file, or a 3D world.

68. The [system] set top device of claim 66 wherein the accessed resource comprises a communications utility that enables the viewer to communicate with others.

69. The [system] set top device of claim 68 wherein the communications utility comprises one or more of the following: an email program, an instant messaging program, or a chat program.

70. The [system] set top device of claim 66 wherein the accessed resource comprises a local function.

71. The [system] set top device of claim 70 wherein the local function comprises a TV or VCR control operation.

72. The [system] set top device of claim 43 [further comprising software instructions for modifying] wherein the processor is configured to modify the predetermined action prior to triggering.

73. The [system] set top device of claim 72 wherein the predetermined action is modified in response to the passage of time.

74. The [system] set top device of claim 72 wherein the predetermined action is changed based on a current context.

75. The [system] set top device of claim 74 wherein a first context corresponds to a first state in which [a] the set top device is logged into an online service provider host system and a second context corresponds to a second state in which the [a] is not logged into the online service provider host system.

76. The [system] set top device of claim 72 wherein the predetermined action is changed in response to an event.

77. The [system] set top device of claim 76 wherein the event comprises detecting an action performed by the viewer.

78. The [system] set top device of claim 72 wherein the [instructions for modifying the predetermined action comprise instructions for changing] processor is configured to modify an address of a link associated with the active region to specify a different resource.

79. The [system] set top device of claim 43 wherein the TV signal includes a plurality of graphic signals within a TV frame.

80. The [system] set top device of claim 79 [further comprising instructions for generating] wherein the processor is configured to modify a separate active region for each graphic signal.

81. The [system] set top device of claim 80 wherein each active region has its own associated predetermined action.

82. The [system] set top device of claim 80 [further comprising instructions for triggering] wherein the processor is configured to trigger a separate predetermined action for each active region.

83. The [system] set top device of claim 43 wherein information defining the active region and/or the predetermined action is received in during the vertical blanking interval of the TV signal.

84. The [system] set top device of claim 43 wherein information defining the active region and/or the predetermined action is specified prior to receiving the TV signal.

Please add the following new claims.

--86. A computer-implemented method of providing interactive links in TV programming, the method comprising:

- receiving a TV signal;
- receiving data corresponding a graphic symbol;
- generating a TV picture from the TV signal;
- generating an active region corresponding to the graphic symbol in the TV picture; and
- triggering a predetermined action associated with the active region in response to viewer input.

87. The method of claim 86 wherein receipt of the graphic symbol data further comprises receiving information defining the active region to be generated.

88. The method of claim 86 wherein receipt of the graphic symbol data further comprises receiving information defining the predetermined action to be triggered.

89. The method of claim 86 wherein generation of the active region corresponding to the graphic symbol comprises generating a webpage having a link to a resource.

90. The method of claim 86 wherein the active region is a same size and shape and at a same location in the TV picture as the received graphic symbol.

91. The method of claim 86 wherein the active region roughly approximates the size, shape and/or location of the received graphic symbol.

92. The method of claim 86 wherein the generated active region is visually transparent to the viewer.

93. The method of claim 86 wherein the generated active region is visible to the viewer.

94. The method of claim 93 wherein the visible active region is translucent.

95. The method of claim 93 wherein the visible active region enhances an appearance of the received graphic symbol.

96. The method of claim 86 further comprising modifying the active region's appearance in response to the passage of time.

97. The method of claim 86 further comprising modifying the active region's appearance based on a current context.

98. The method of claim 97 wherein a first context corresponds to a first state in which a set top device is logged into an online service provider host system and a second context corresponds to a second state in which the set top device is not logged into the online service provider host system.

99. The method of claim 86 further comprising modifying the active region's appearance in response to an event.

100. The method of claim 99 wherein modifying the active region's appearance comprises changing one or more of the following visual characteristics of the active region: transparency, translucency, color, shape, size or location.

101. The method of claim 86 wherein the viewer input that triggers the predetermined action comprises selection of the active area.

102. The method of claim 86 wherein triggering the predetermined action comprises accessing a resource linked to the active region.

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103. The method of claim 102 wherein the accessed resource comprises one or more of the following: a webpage, a text file, a sound file, an image file, a movie file, or a 3D world.

104. The method of claim 102 wherein the accessed resource comprises a communications utility that enables the viewer to communicate with others.

105. The method of claim 104 wherein the communications utility comprises one or more of the following: an email program, an instant messaging program, or a chat program.--